

ITEM #0950000A – FLOODPLAIN ESTABLISHMENT SEED MIX

Description: The work included in this item shall consist of providing an accepted stand of established vegetation within the designated floodplain areas, floodway areas, wetland mitigation/enhancement areas, or other areas when required, by furnishing and placing seed as shown on the plans, permits, or as directed by the Environmental Scientist from the Department's Office of Environmental Planning.

Materials: All seed mixture sources shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland in order to preserve and enhance the diversity of native wetland species for use in floodplain or wetland mitigation areas, or other areas as determined by the Environmental Scientist.

Fertilizer, if necessary based on soil analysis of the wetland area to be seeded, shall meet the requirements of M.13.03.

All seed mixture sources and fertilizer shall be approved by the Environmental Scientist prior to application.

Two approved seed mixtures are detailed below.

1. **New England Logging Road Mix: (NEWP) New England WetMix**, New England Wetland Plants, Inc. 800 Main Street Amherst, MA 01002, or equal. Rate shall be 1 pound PLS per 1900 sq.ft.

scientific name

Agrostis scabra
Andropogon gerardii
Chamaecrista fasciculata
Elymus virginicus
Festuca rubra
Juncus effusus
Juncus tenuis
Panicum clandestinum
Panicum virgatum
Schizachyrium scoparium
Sorghastrum nutans

common name

Rough Bentgrass
 Big Bluestem
 Partridge Pea
 Virginia Wild Rye
 Creeping Red Fescue
 Soft Rush
 Path Rush
 Deer Tongue
 Switch Grass
 Little Bluestem
 Indian Grass

2. **Floodplain Mix:** Ernst Conservation Seeds Inc. 8884 Mercer Pike, Meadville, PA, 16335, or equal. Rate shall be 20 pound PLS per 1 acre with 30 pound per acre of cover crop of grain rye.

scientific name

Andropogon gerardii

common name

Big Bluestem

<i>Asclepias incarnata</i>	Swamp Milkweed
<i>Aster novae-angliae</i>	New England Aster
<i>Carex lurida</i>	Lurid Sedge
<i>Carex scoparia</i>	Blunt Broom Sedge
<i>Carex vulpinoidea</i>	Fox Sedge
<i>Desmodium canadense</i>	Showy Ticktrefoil
<i>Elymus virginicus</i>	Virginia Wildrye
<i>Eupatorium fistulosum</i>	Joe Pye Weed
<i>Eupatorium perfoliatum</i>	Boneset
<i>Euthamia graminifolia (Solidago g.)</i>	Grassleaf Goldenrod
<i>Heliopsis helianthoides</i>	Oxeye Sunflower
<i>Juncus effusus</i>	Soft Rush
<i>Lobelia siphilitica</i>	Great Blue Lobelia
<i>Monarda fistulosa</i>	Wild Bergamot
<i>Panicum clandestinum</i>	Deertongue
<i>Panicum virgatum</i>	Switchgrass
<i>Pycnanthemum tenuifolium</i>	Slender Mountainmint
<i>Sisyrinchium angustifolium</i>	Narrowleaf Blue Eyed Grass
<i>Verbena hastata</i>	Blue Vervain

If an alternate seed mixture is proposed, it must be approved by the Environmental Scientist prior to application. The materials certification for any proposed mixture that is different from that described above must be submitted a minimum of ten (10) days prior to delivery on site. This certification must match the approved substitute mixture and the seed tags on the bags. The seed tags from the bags are to be removed upon delivery and attached to the Material Certification. No seeding shall occur if all three requirements do not match.

All approved seed mixtures shall be obtained in sufficient quantities to meet the pure live seed (PLS) application rates as determined by the seed analysis of the mixture.

Construction Methods: Construction methods shall be those established as agronomically acceptable and feasible and as approved by the Engineer.

Soil analysis of the wetlands shall be done prior to seeding.

Seeding Season: The calendar dates for seeding shall be:

Spring – March 1 to June 15

Fall – August 15 to October 15

When the placement of Floodplain Establishment Seed Mix is associated with the construction of a wetland mitigation/enhancement project, seeding shall occur in the fall or as directed by the Environmental Scientist.

Seeding shall be applied to all areas that were subject to disturbance. If seed is purchased in bulk rather than by PLS, the rate of application shall be adjusted to meet the required PLS seeding rate. This seeding rate shall be increased by the appropriate percentage as determined by the following formula based from the information provided on the seed tags at delivery.

$$(\text{Germination Percentage} \times \text{Purity Percentage}) / 100 = \text{Percentage PLS}$$

The Engineer shall verify that the seed is applied at a rate that will allow for 100 percent PLS.

Application of fertilizer will be directed by the Environmental Scientist based on a soil analysis of the wetland area to be seeded.

Method of Measurement: The work will be measured for payment by the number of pounds of each size and kind of floodplain seed, planted and accepted.

Basis of Payment: This work will be paid for at the contract unit price per pound for "Floodplain Establishment Seed Mix," which price shall include all materials maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 50% may be made for work completed, but not accepted. Full payment shall not be made until the area has been accepted by the Engineer.

Pay Item	Pay Unit
Floodplain Establishment Seed Mix	lb.